

1981 Index

A

- Agricultural Outlook Conference, editorial, Nov-2
Agricultural research in the 1980's, editorial, Mar-2
Air pollution
 crop damage, Nov-4
 field burning, Sept-12
Alcohol from sorghum, Jul-16
Alfalfa
 PRO-XAN, a new dehydration process, Mar-5
 verticillium wilt, Sept-8
Alkaloids, reed canarygrass, Jun-14
Animal diseases
 beta₂-microglobulin, May-4
 brucellosis vaccine, May-11
 cancer eye and solar activity, May-9
 contraband foods, Oct-4
 hemorrhagic enteritis, Dec-7
 lone star tick control, Aug-15
 Marek's disease, Dec-2, 5, 6
 porcine parvovirus immunity, Aug-16
 swine dysentery, Jan/Feb-15
 vitamin D metabolism, Aug-14
Animal feed
 cholesterol reduction in chickens
 fed barley, Nov-10
 estrogen Synovex-S and efficiency, May-10
 PRO-XAN alfalfa processing, Mar-5
 sulfa drugs, Sept-6
Antibiotics
 for plants, Sept-15
 penicillin, history of production, May-14
Aphids and thrips, Jan/Feb-16
Apples, irrigation techniques, Nov-16

B

- Bacteria
 in streambed sediment, Mar-13
 See also Soil microorganisms
Bacterial wilt, cucurbits, Aug-12
Barley
 low input for dry lands, Oct-13
 reduces cholesterol in chickens, Nov-10

- Barley yellow dwarf disease, Aug-13
Basic research, editorial, May-2
Bean gene in sunflower, Aug-4
Bee diseases, diagnosis, Jul-14
Beta₂-microglobulin, May-4
Biological pest control
 black cutworm, viral control, Jan/Feb-11
 boll weevil, Oct-12
 corn borer, Jul-11
 cotton pests, see Cotton
 cucumber beetle, Aug-12
 ethyl formate, Jan/Feb-16
 greenbug, Oct-13
 horticultural crops, Jan/Feb-16
 hydrilla, Jan/Feb-8
 Japanese beetle lures, Nov-14
 lone star tick, Aug-15
 metabolic disruption of insects, Jan/Feb-10
 narrow-row cotton systems, Dec-9
 nematodes for tree pests, Sept-9
 pink bollworm, May-12
 stem rust, Mar-7, 9
 tobacco hornworm, Jan/Feb-10
 trichogramma, as control agent, Apr-11
 yellow wilt, sugarbeets, May-6
Black cutworm, viruses attack, Jan/Feb-11
Boll weevil control, Oct-12
Borlaug, Norman, editorial, Oct-2
Brucellosis vaccine, May-11
Burton, Glenn, editorial, Apr-2

C

- Cablegation, Jun-7
Cancer eye and solar activity, May-9
Carbon dioxide, photosynthesis, Dec-8
Cattle
 brucellosis vaccine, May-11
 cancer eye and solar activity, May-9
 forage tests, Jan/Feb-9
 grazing small watersheds, Oct-11
 heifers test fescue, Aug-16
 Herefords, breeding, Jul-10
 lone star tick control, Aug-15
 manure, methane, Jan/Feb-12
 range science, Jun-10
 steers, hormonal implants and feed efficiency, May-10

- Cell culture, turkey virus grown in, Dec-7
Cherry, Japanese, Apr-4, 5
Cholesterol, Nov-10
Cicer milkvetch, Aug-15
Citrus, cold hardiness, Jun-4
Clonal repository, Jul-10
Cold hardiness, citrus, Jun-4
Computer modeling
 FLEXCROP, May-16
 reducing risks in cropping, May-16
 wheat straw decomposition, Apr-13
Conservation tillage
 microorganisms in soil, Sept-10
 wheat straw decomposition, model, Apr-13
 yields and erosion, Jul-16
Contraband foods, Oct-4
Corn
 as a weed, Nov-7
 black cutworm control, Jan/Feb-11
 conservation tillage, Jul-16
 corn borer control, Jul-11
 corn borer rearing, Nov-16
Corn borer
 automated rearing, Nov-16
 biological control, Jul-11
Cotton
 boll weevil control, Oct-12
 breeding, May-13
 narrow-row, Dec-9
 pima, long staple, Oct-16
 pink bollworm, May-12
 saline irrigation water, Oct-10
Cucumber beetle, control, Aug-12
Cucurbits, pest control, Aug-12

D

- Drip irrigation, see Irrigation
Drought-tolerant barley, Oct-13

E

- Ecology of rangeland, Jun-10
Eggshells, vaccination through, Dec-5
Energy
 alcohol from sorghum, Jul-16
 methane from manure, Jan/Feb-12
 wind, states with potential, Aug-15

- Erosion control
 crop residue decomposition, Apr-13
 editorial, Sept-2
 frozen soils, Sept-7
 irrigation furrows, Nov-12, 13
 wind on dryland soils, May-16
 yields and conservation tillage, Jul-16
- Estrogen, steer implants and feed efficiency, May-10
- Ethyl formate, Jan/Feb-16
- European corn borer, biological control, Jul-11
- Ewes, nutrition and pregnancy, Jul-12, Sept-16
- F**
- Farms, small, and horticultural crops, Jul-4
- Fermentation, manure, Jan/Feb-12
- Fertilizer, trout manure, Nov-9
- Fescue grass
 ewes, conception, Sept-16
 quality and heifers, Aug-16
- Fuel, *see* Energy
- Figs, biological control of pests, Sept-9
- Filberts, grafting, Jul-12
- Fish manure, as fertilizer, Nov-9
- Flax, growth regulators, Sept-13
- FLEXCROP, May-16
- Food dryer, solar, Apr-10
- Food processing
 potato chips, Jun-8
 rice, Oct-15
 vegetables, microwave blanching, Oct-16
- Forage grasses
 Burton, Glenn, editorial, Apr-2
 fescue and conception in ewes, Sept-16
 fescue quality tests, Aug-16
 hybrids, for range, Jan/Feb-9
 reed canarygrass, Jun-14
- Forage legumes
 cicer milkvetch, Aug-15
 PRO-XAN processing of alfalfa, Mar-5
- Frozen soils, erosion control, Sept-7
- Fruits
 apples, irrigation, Nov-16
 grapefruit shipping, Aug-10
 horticultural crops in the north-eastern U.S., Jul-4
 mangos, Nov-8
 solar dryer, Apr-10
- Furrow irrigation, *see* Irrigation
- G**
- Genetic engineering
 bean gene in sunflower, Aug-4
 editorial, Aug-2
- Genetics
 Borlaug, Norman, editorial, Oct-2
 Burton, Glenn, editorial, Apr-2
 cotton, May-13, Oct-16
 Herefords, Jul-10
 range grasses, Jan/Feb-9
 rice, Apr-14
 sugarbeets, yellow wilt, May-6
 wheat, Aug-13, Oct-13
- Germplasm
 clonal repository, Jul-10
 editorial, Jul-2
- Grafting, hot callusing of filberts, Jul-12
- Grapefruit shipping, Aug-10
- Grapes, seedless, ovule culture, Dec-12
- Grass seed, field burning and, Sept-12
- Gravity irrigation, *see* Irrigation
- Greenbug, wheat resistance, Oct-13
- Growth regulators and flax, Sept-13
- H**
- Harvesting cotton, Dec-9
- Hazel nuts, *see* Filberts
- Hemorrhagic enteritis virus, cell culture, Dec-7
- Hendricks, Sterling B., editorial, Jan/Feb-2
- Herbicides
 soybean seeding rates, Jun-15
 volunteer corn, Nov-7
 water pollution, Jan/Feb-16
- Herbs, national garden, Mar-10
- Hogs, *see* Pigs
- Honey bees, diagnosing diseases, Jul-14
- Hormones
 insects, Jan/Feb-10
 cattle, May-10
- Horticultural crops, north-eastern U.S., Jul-4
- Hot callusing, filberts, Jul-12
- Hybrid vigor
 citrus, Jun-4
 cotton, May-13
 rice, Apr-14
- Hybrids
 grapes, seedless, Dec-12
 interspecific, sunflowers, Oct-14
 range grasses, Jan/Feb-9
- Hydrilla, Jan/Feb-4, 8
- I**
- Insects
 corn borer rearing, Nov-16
 honey bees, disease diagnosis, Jul-14
 lone star tick control, Aug-15
 trap design, Aug-6
see also Biological pest control
- Insect rearing, corn borer, Nov-16
- Insect traps
 night vision goggles and cameras aid design, Aug-16
 Japanese beetle lures, Nov-14
- Integrated pest management
 lone star tick control, Aug-15
 narrow-row cotton, Dec-9
 pink bollworm, May-12
 stem rust, Mar-7, 9
see also Biological pest control
- Interspecific hybridization, sunflowers, Oct-14
- Irrigation
 automated furrow, Jun-7
 cablegation, Jun-7
 deficit water management—
 sugarbeets, Dec-10,
 barley, Oct-13
 saline water, for cotton, Oct-10
 straw in furrows, Nov-13
 tailwater pipe and erosion control, Nov-12
 wind energy, Aug-15
- J**
- Japanese beetle lures, Nov-16
- Japanese cherry trees, Apr-4, 5
- L**
- Lactolin, beta₂-microglobulin and immune system, May-4
- Lamb production
 breeding parent lines, Apr-8
 ewes, nutrition and pregnancy, Jun-12
 fescue grass and ewe conception, Sept-16
- Laser-guided traveling trickle irrigation, Sept-4

M

- Manure
methane production, Jan/Feb-12
fish, as fertilizer, Nov-9
- Marek's disease
research investment payoffs,
editorial, Dec-2
vaccination through eggshells,
Dec-5
vaccine, new, Dec-6
- Methane from manure, Jan/Feb-12
- Microorganisms in soil,
see Soil microorganisms
- Microwave blanching, vegetables,
Oct-16
- Multibreed sheep, lamb production,
Apr-8

N

- Narrow-row cotton, Dec-9
- National Arboretum, herb garden,
Mar-10
- Nematodes
control tree pests, Sept-9
new species, Sept-16
- Nitrogen fixation, soybeans, Apr-12
- Nutrition
ewes, pregnancy, Jun-12
vitamin D metabolism, Aug-14

O

- Oil content
flax seed, Sept-13
potato chips, Jun-8
- Ornamentals, Japanese cherry trees,
Apr-4, 5
- Ovule culture in seedless grapes,
Dec-12

P

- Packaging food, grapefruit shipping,
Aug-10
- Pasture, winter, Oct-11
- Peaches, micropropagation, Aug-8
- Penicillin, history of production, May-14
- Pesticides
biodegradation, Sept-14
see also Biological pest control;
Herbicides
- Photoperiodism, pioneering research,
editorial, Jan/Feb-2
- Photosynthesis and plant stress,
Dec-8
- Pigs
porcine parvovirus, Aug-16
sulfa drugs in feed, Sept-6
swine dysentery, Jan/Feb-15
vitamin D metabolism, Aug-14

Pink bollworms

- narrow-row cotton, Dec-9
overwintering populations, control,
May-12
trap design, Aug-6

Plant diseases

- bacterial wilt of cucurbits, Aug-12
barley yellow dwarf disease,
Aug-13
contraband foods, Oct-4
control, horticultural crops, Jul-4
field burning, Sept-12
new potato nematode, Sept-16
potato spindle tuber viroid, Oct-8
stem rust of wheat, Mar-7, 9
verticillium wilt of alfalfa, Sept-8
yellow wilt of sugarbeets, May-6

Plant propagation

- hot-callusing for filbert trees, Jul-12
micropropagation of peaches,
Aug-8

Plant tissue culture

- micropropagation of peaches,
Aug-8
seedless grapes, Dec-12
sunflower hybrids, Oct-14

Porcine parvovirus, Aug-16

Potatoes

- gene splicing, Oct-4
modern chips, Jun-8
new nematode discovered, Sept-16
new variety, Aug-15
potato spindle tuber viroid, Oct-4

Poultry

- barley reduces serum cholesterol,
Nov-10
hemorrhagic enteritis virus,
Dec-7
Marek's disease, Dec-2, 5, 6
sunflower seed meal, Oct-14
turkey virus cultured, Dec-7
vaccination through eggshells,
Dec-6

Protein

- beta₂-microglobulin, May-4
PRO-XAN alfalfa processing, Mar-5
rice processing, Oct-15
sunflower meal, poultry, Oct-14

R

- Rangelands and science,
Jun-10

Reed canarygrass, Jun-14

- Recombinant DNA
bean gene in sunflower,
Aug-4
genetic engineering, editorial,
Aug-2
potato spindle tuber viroid,
Oct-8

Research

- basic, editorial, May-2
investment payoffs,
editorial, Dec-2
team approach, editorial,
Jun-2

Rice

- hybrid, Apr-4
processing, Oct-15

Rust, stem, Mar-7, 9

S

Safflower, crop rotations, May-16

Salt-tolerance, cotton, Oct-10

Sewage

- disposal, rural, Jun-13
sludge as growth medium, Jul-4

Sex attractant, Japanese beetle, Nov-14

Sheep

- nutrition and pregnancy, Jun-12
parent lines for lamb production,
Apr-8
fescue and ewe conception,
Sept-16

Shipping grapefruit, Aug-10

Small farms, horticultural crops, Jul-4

Soil microorganisms

- antibiotics for plants, Sept-15
reduced tillage ecosystems,
Sept-10

Toxic waste degradation, Sept-14

Soils, *see* Soil microorganisms;

Erosion control

Solar food dryer, Apr-10

Sorghum, for fuel, Jul-16

Soybeans

- herbicides, Jun-15
nitrogen fixation, Apr-12
volunteer corn, Nov-7

Steers, feed efficiency, May-10

Stem rust, Mar-7, 9

Strawberry anthracnose, screening for, Sept-10

Streambeds, bacteria in sediment, Mar-13

ARES SERIA300SG1SSDUE005R 1 *
SERIAL ID PROCESSING DEPT *
XEROX UNIV MICROFILMS *
300 N ZEEB RD *
ANN ARBOR MI 48106 *

Sucrose, sugarbeet irrigation, Dec-10

Sugarbeets

yellow wilt, May-6
irrigation, Dec-10

Sulfa drugs in hog feed, Sept-6

Sunflowers

bean gene, Aug-4
hybrids, Oct-14
seed meal for poultry, Oct-14

Swine, see Pigs

Synovex-S implants in steers, May-10

T

Terbar—terrace barrier system for
dryland, May-16

Ticks, lone star, control, Aug-15

Tobacco budworm, trap design, Aug-6
Tobacco hornworm, biological control,
Jan/Feb-10

Trickle irrigation, see Irrigation

U

Ultraviolet radiation

cancer eye, May-9
toxic liquid waste, Sept-14

Uric acid poisoning, insects, Jan/Feb-10

V

Vaccines

burcellosis, May-11
chicks vaccinated through
eggshells, Dec-5

Marek's disease, Dec-2, 6

Vegetables

air pollutant damage, Nov-4
microwave blanching, Oct-16
northeastern U.S., Jul-4
potato chips, Jun-8
potato variety, Aug-15

Verticillium wilt, Sept-8

Vitamin D metabolism, Aug-14

W

Wasps, in biological control, Apr-11

Water pollution

bacteria in streambeds, Mar-13
hydrilla, Jan/Feb-4, 8
herbicides, Jan/Feb-16
sewage disposal, rural areas,
Jun-13

Watersheds, winter pasture, Oct-11

Waterways, hydrilla, Jan/Feb-4, 8

Weeds

field burning, Sept-12
hydrilla, Jan/Feb-4, 8
volunteer corn, Nov-7

Wheat

greenbug resistance, Oct-13
research returns, Aug-13
stem rust, Mar-7, 9
straw decomposition, Apr-13

Wind energy, states with potential,
Aug-15

Wind erosion, Terbar conservation
system, May-16

Winter pasture, Oct-11

Y

Yellow wilt, preparing for, May-6

